FOR ARGUMENT

Supreme Court, U. S.
FILED
APR 5 1978
MICHAEL RODAK, JR., CLERK

IN THE

Supreme Court of the United States

October Term, 1977

No. 77-642

LUTRELLE F. PARKER, Acting Commissioner of Patents and Trademarks,

Petitioner,

v.

DALE R. FLOOK,

Respondent.

On Writ of Certiorari to the United States Court of Customs and Patent Appeals.

BRIEF AMICUS CURIAE FOR MOBIL OIL CORPORATION

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BRIEF AMICUS CURIAE FOR MOBIL OIL CORPORATION.

I.

THE NATURE AND INTEREST OF THE AMICUS.

This brief amicus curiae is submitted by Mobil Oil Corporation in accordance with Rule 42(2) of this Court. Letters of consent from both parties have been filed with the Clerk of the Court.

Mobil Oil Corporation has as its principal business the exploration for, production, refining and marketing of petroleum and products derived therefrom on a worldwide basis. As a supporting activity, Mobil has several research facilities in different parts of the country utilized for original research to develop the full potential of computer

applications in its various fields of activity. Mobil's computers are in twenty-four hour a day use to find petroleum, to control its refineries, to increase the yield of petroleum products, and to develop new processes for converting coal to liquid petroleum products such as gasoline. Its large expenditures in research and practical applications involving computer operation have given rise to proprietary information deemed of great value. Mobil has an extensive licensing program under which its patented proprietary technology is generally made available for use by others around the world. Computer related technology has not been included, however, because of uncertainty as to protection afforded by the patent laws.

II.

SUMMARY OF THE ARGUMENT.

A. The C. C. P. A. has carefully applied this Court's ruling in *Gottschalk v. Benson et al*, 409 U. S. 63 (1972), (hereinafter *Benson*). Digital computers are used in numerous arts and technologies, a variety of which have been considered by the C. C. P. A. since the *Benson* decision. No general rule of law can justly prescribe the patentability of all of them. Petitioner wrongly urges this Court to adopt a general rule of law denying patentability to all inventions which are implemented by digital computers.

B. In urging unpatentability, Petitioner uses an approach inconsistent with the well established principle codified in 35 U. S. C. § 103, that the invention as a whole must be considered in determining patentability. Petitioner would separate the inventor's original idea, or discovery from the mode of implementing it. In accordance with Petitioner's approach, this mode of implementation must be inventive in and of itself. This would rule out large numbers of important patents in which the inventor's idea or discovery

rather than its mode of implementation is the inventive contribution.

C. If the Petitioner's position is adopted, large segments of the useful arts would be excluded from protection under the federal patent statutes. These innovations would be protected, if at all, only under the proprietary rights laws of the various states. The disparity in protection, and attendant confusion as to whether protection exists in a given state, would unnecessarily limit the exchange of technology. The patent statutes should be construed as applying to all newly developed technologies unless Congress specifically excludes them from protection.

III.

ARGUMENT.

A. *Benson* Has Been Properly Applied by the C. C. P. A. in Many Appeals.

Digital computers are use in geophysical exploration [1], banking [2], graphic display [3], controlling systems of other computers [4], operating systems of oil refineries [5], data

1. *In re Christensen*, 478 F. 2d 1392 (C. C. P. A. 1973); 35 U. S. C. § 101 rejection affirmed by C. C. P. A.

2. *In re Johnston*, 502 F. 2d 765 (C. C. P. A. 1974); 35 U. S. C. §§ 101 and 103 rejections reversed by C. C. P. A.; *rev'd.* as to 35 U. S. C. § 103 rejection *sub nom. Dann v. Johnston*, 425 U. S. 219 (1976).

3. *In re Noll*, 545 F. 2d 141 (C. C. P. A. 1976); 35 U. S. C. § 101 rejection reversed by C. C. P. A.; *cert. denied* — U. S. —, 195 U. S. P. Q. No. 5, p. II.

4. *In re Chatfield*, 545 F. 2d 152 (C. C. P. A. 1976); 35 U. S. C. § 101 rejection reversed; *cert. denied* — U. S. —, 195 U. S. P. Q. No. 5, p. II.

5. *In re Deutsch*, 553 F. 2d 689 (C. C. P. A. 1977); 35 U. S. C. § 101 rejection reversed by C. C. P. A.

processing [6], catalytic cracking of hydrocarbons [7], controlling machine tools [8], aircraft navigation [9] and selling automobiles [10]. These arts were involved in ten appeals which the C. C. P. A. decided since this Court's decision in *Benson*. No general rule can justly prescribe the patentability of all of the foregoing technologies. The presence or absence of a programmed general purpose digital computer in a patent application claiming an innovation neither confers upon nor detracts from the patentability of that innovation. Nevertheless, the Patent Office has taken the position that *Benson* precludes patentability of all of the foregoing arts which use digital computers, a position reasserted by petitioner in this appeal. Petitioner is attempting to do the very thing which this Court so carefully guarded against in *Benson* when it stated:

> "It is said that the decision precludes a patent for any program servicing a computer. *We do not so hold.*" 409 U. S. at 71, (emphasis added).

Furthermore, in urging a broad proscription of patentability, Petitioner has ignored this Court's subsequent observation that the holding in *Benson* was "limited" to the patentability of the process in question. *Dann v. Johnston, supra,* 425 U. S. at 224.

The C. C. P. A. has carefully applied *Benson* on a case by case basis, eschewing the broad proscription of patent-

6. *In re Waldbaum*, 559 F. 2d 611 (C. C. P. A. 1977); 35 U. S. C. § 101 rejection affirmed by C. C. P. A.

7. *In re Flook*, 559 F. 2d 21 (C. C. P. A. 1977); *cert. granted sub nom. Parker v. Flook*, — U. S. — (1977) (No. 77-642).

8. *In re deCastelet*, 562 F. 2d 1236 (C. C. P. A. 1977); 35 U. S. C. § 101 rejection affirmed by C. C. P. A.

9. *In re Richman*, 563 F. 2d 1026 (C. C. P. A. 1977); 35 U. S. C. § 101 rejection affirmed by C. C. P. A.

10. *In re Warmus*, — F. 2d —, 195 U. S. P. Q. 234 (C. C. P. A. 1977); 35 U. S. C. § 103 rejection affirmed by C. C. P. A. without reaching rejection under 35 U. S. C. § 101.

ability urged by Petitioner. That court found patentable subject matter in five cases and found unpatentable subject matter in the remaining five cases. In these ten cases, the C. C. P. A. very carefully analyzed exactly what the applicants claimed. Only such a careful analysis on a case by case basis will enable the patent system to meet the constitutional mandate for advancing the useful arts. If this Court adopts Petitioner's position as set forth on page 18 of its brief, however, all of the careful analysis by the C. C. P. A. will be ignored by the Patent Office.

As one example of the problems and further appeals which would be engendered by such a holding, consider the patent application, assigned to amicus, and involved in *In re Deutsch supra,* n 5. That patent application relates to the computer control of a system of multiple plants, such as oil refineries. The C. C. P. A. unanimously found the subject matter claimed in the Deutsch application to be patentable. The Patent Office did not petition this Court for *certiorari,* but neither did the Patent Office issue the patent. Despite the fact that the C. C. P. A. handed down its decision on May 5, 1977, the Patent Office has not yet taken even preliminary steps toward issuance of the patent [11]. Action on this application and numerous other patent applications, which in all respects comply with the requirements for patentable subject matter, has been suspended pending a decision on the broad issue which the Petitioner would have this Court decide [12].

11. The Patent Office normally sends a Notice Of Allowance requesting payment of a fee. After payment of the final fee, the patent is printed and issued. 37 C. F. R. § 1.316.

12. As a further example of the manner in which the Patent Office has suspended proceedings, reference is made to *Ex Parte Ruehle*, Appeal No. 320-89, Pat. Office Bd. of App. Although the Board of Appeals agreed that early decisions on appeals are normally in the best interests of the parties and the public, it denied a petition to expedite a decision on an appeal relating to seismic

Amicus submits that *Benson*, as it has been carefully applied by the C. C. P. A., properly carries out the constitutional mandate to promote the progress of the useful arts.

B. An Inventor's Idea or Discovery Is Part of the Invention as a Whole and Must Be Considered in Determining Patentability.

Thousands upon thousands of patents have been granted to amicus and others on chemical, electrical and mechanical inventions in which implementation of the idea is perfectly clear from the idea itself. Petitioner argues that:

> "To merit monopoly protection, it is not sufficient that a claim embody a concrete, tangible application of a mathematical or scientific principle; it must also extend beyond the routine, conventional, or uninventive applications that follow once the applicant possesses the idea." Petitioner's Brief at 19.

This contention is antithetical to the law which has upheld the validity of numerous patents in which the inventor's contribution was a discovery or an idea. As just one example, compositions of matter useful in catalytic cracking of gasoline can usually be conventionally produced after the inventor discovers the composition. Petitioner argues that the means or mode for implementing the discovery must be unobvious, but this is completely contrary to the established principle, codified in 35 U. S. C. § 103, that *the invention as a whole* must be considered in

12. (Cont'd.)
exploration. As its reason, the Board stated that ". . . Parker v. Flook may have a substantial impact on the law governing the decision in this appeal." (Unpublished decision dated March 14, 1978).

determining patentability.[13] *Graham et al v. John Deere Co. of Kansas City et al*, 383 U. S. 1, 3, 32 (1965).[14] This Court has consistently considered the invention as a whole in determining patentability.

In *Eibel Process Co. v. Minnesota & Ontario Paper Co.*, 261 U. S. 45 (1923), the patentee discovered that wrinkling and malformation of paper in a paper making machine that had baffled an entire industry for decades occurred because the stock did not flow fast enough at a critical point in the process. Eibel simply increased the pitch of the path of the stock to take advantage of the force of gravity to increase the flow rate. This Court upheld the patent, deciding that the patentee had made a patentable contribution in discovering the problem even though once discovered the solution was routine.

In *U. S. v. Adams et al*, 383 U. S. 39 (1966), a patent on a water activated battery was upheld. The implementation of this battery required only ordinary skill, but it was the idea that imparted patentability to the patent.

The invention as a whole, and not the particular form or language used to describe it, must be considered in determining the patentability of the subject matter involved in any particular case. If the subject matter is implemented with the aid of a computer, the appropriate

13. 35 U. S. C. § 103 provides:

> § 103. Conditions for patentability; non-obvious subject matter. A patent may not be obtained though the invention is not identically disclosed or described as set forth in § 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

14. See *Trio Process Corporation v. L. Goldstein's Sons, Inc.*, 461, F. 2d 66, n. 18a (3 Cir. 1972); *In re Aufhauser*, 399 F. 2d 275, 277 (C. C. P. A. 1968); *In re Conover*, 304 F. 2d 680, 683 (C. C. P. A. 1962); and *In re Roberts and Burch*, 470 F. 2d 1399 (C. C. P. A. 1973).

language with which to define this subject matter is mathematics, a language which the technologist utilizing the computer understands. Analogously, the biologist understands species named in Latin. Ergo, biological inventions often make use of Latin terms to define species. The language used to define an invention ought not to be dispositive of patentability—rather patentability should be judged by the invention as a whole, however, described. For example, many chemical process patents claim invention in controlling a particular process variable within specified limits. One acceptable way of claiming such might be "controlling the pressure of a reaction between 100 and 500 psi as a function of the reaction temperature." This could also be accurately written:

$P = f(T)$; from $P = 100$ p.s.i. to $P = 500$ p.s.i.

Whether a patent claim is written in prose or in mathematical format is not determinative of patentability.

> "While a scientific truth, or the mathematical expression of it, is not patentable invention, a novel and useful structure (process, machine, manufacture or composition of matter) created with the aid of knowledge of scientific truth may be." *Mackay Radio & Telegraph Co. v. Radio Corporation of America,* 306 U. S. 86, 94 (1939) (Parenthetical matter added from 35 U. S. C. § 101)

The inclusion of a mathematical relationship in a patent claim does not necessarily destroy patentability.

Petitioner's brief distorts the patent law by improperly expanding the limited holding of *Funk Bros. Seed Co. v. Kalo Inoculant,* 333 U. S. 127 (1948). In that case, the alleged invention related to a principle of nature. Principles of nature or natural phenomena, such as that involved in the *Funk* case, are not patentable because they are not related to the useful arts for which the Constitution mandates patent protection. Where the invention as a whole relates to a principal of nature, or a fundamental natural law, only the unobvious implementation is patentable, not the particular law itself. Where the invention relates to one of the useful arts, however, such as the catalytic chemical conversion of hydrocarbons involved in the case at bar, it is only necessary that the invention as a whole, including the idea or discovery, be unobvious.

C. Exclusion of a Broad Area of the Useful Arts From Protection Under the Federal Patent Statutes Will Be Detrimental to the Advancement of the Useful Arts.

The desirability of uniformity under a federal patent system is well stated in *Sears, Roebuck & Co. v. Stiffel Co.,* 376 U. S. 225, 230 (1964):

> "Thus the patent system is one in which uniform federal standards are carefully used to promote invention while at the same time preserving free competition."

Petitioner argues that *Benson* precludes patentability of substantial numbers of patents for computer implemented inventions.[15] If the Petitioner's position is adopted, the same situation will exist that existed with respect to sound recordings after *White-Smith v. Apollo,* 209 U. S. 1 (1908) precluded statutory federal copyright protection for these recordings. In the interim between *White-Smith v. Apollo* and passage in 1971 of the Federal statute providing copyright protection for sound recordings, the states were free to enact statutes providing protection for sound recordings. This Court noted that a copyright granted by a particular state had effect only

15. Petitioner's Brief at 24. Petitioner estimates the number of such applications to be 600 to 900 now pending with approximately 450 such applications being filed each year.

within its boundaries, thus having no coercive effect on "record or tape piracy" outside of those boundaries. *Goldstein v. California,* 412 U. S. 546, 558 (1973), reh. den. 414 U. S. 883. The analogy between the exclusion of sound recordings from the copyright laws before 1971 and the potential exclusion of "new technology" from the 1952 Patent Act, as argued for by petitioner, is too strong to be ignored.

If a broad area of computer implemented technology is excluded from protection under the federal patent statutes, the only proprietary rights in this technology will be under such laws as the various states may enact.[16] The result of this varied protection will be a burden upon interstate commerce as well as a detriment to the American economy. If Petitioner's position is adopted, the states presumably would be free to enact laws extending beyond the normal trade secret type of protection. This Court has previously held that:

> "The only limitation on the States is that in regulating the area of patents and copyrights they do not conflict with the operation of the laws in this area passed by Congress . . ." *Kewanee Oil Co. v. Bicron Corp. et al,* 416 U. S. 470, 479 (1974).

16. While the Federal Copyright Law may provide some nationwide protection for computer programs, the protection extends only to the particular form of expression of the particular computer program and not to the underlying technical advance expressed in different form. Moreover, the reasoning of *White-Smith v. Apollo* might be applied to find that the Copyright Act of 1978 does not extend protection to each use of a program in physical form in a machine. The new copyright act provides that copyrighted matter fixed in physical form is a copy, but 17 U. S. C. § 117 provides that existing law will be applied notwithstanding other provisions of the statute. Many questions remain as to the application of this new act to computer technology. A commission to study changes in the copyright laws relating to protection of computer programs is currently at work, but it is by no means certain when and if Congress will act on its recommendations.

Kewanee reconciled the potential conflict between federal patent laws and state proprietary rights laws. *Kewanee* also recognized that some inventions which do not meet the standards of patentability set forth in 35 U. S. C. § 101 are protectible only under state law. The situation clearly cries out for broad construction of 35 U. S. C. § 101 to include as much technology as possible under the federal patent laws. Such a construction will help prevent conflict between federal and state laws.

The uses made by this amicus, and almost all other uses of computer technology extend beyond the confines of a single state. To rely solely on the trade secret protection of multiple states (or upon patent-like statutes which the states might enact) would unnecessarily complicate and restrict the disclosure and transfer of proprietary information about this technology. A better approach is recognized in *Kewanee*. Federal patents should be granted to encourage disclosure of those inventions which are so meritorious that they meet the standards of 35 U. S. C. § 103. Trade secret protection would be available to encourage investment in the areas of doubtfully patentable and clearly unpatentable technologies.

Petitioner, having already decided that the patent laws are not applicable to computer implemented technology, suggests at page 25 of its brief that Congress provide some other form of protection.[17] If it is necessary to await Congressional action, confusion as to the nature

17. Congress has considered legislation making computer programs unpatentable. H. R. 5924, proposed, 35 U. S. C. § 106, 90th Cong., 1st Sess. (1967) provided:

> "Computer Programs Not Patentable: A plan of action or set of operating instructions, in whatever form presented, to cause a controllable data processor or computer to perform selected operation shall not be patentable."

This legislation was proposed and hearings were held, but the legislation was not adopted. Similar legislation has not been subsequently proposed.

and scope of protection will exist in the interim. The better reasoned approach is to construe the patent statutes as applying to all areas of technology unless Congress specifically excludes a given area from patentability.

We are presently witnessing man's entry into exciting new areas of technology.[18] Are the patent statutes to be so narrowly construed that this Court must decide whether each of these new technologies is statutory subject matter? If the narrower approach is taken, the patent laws could be construed as not applying to many important new technical advances in our rapidly changing technology.

IV.

CONCLUSION.

American jurisprudence is built upon the principle of adaptability. Much of today's commonplace technology was the science fiction of 1952; much of tomorrow's technology would seem like science fiction today. This Court should not construe the 1952 Patent Act so meanly and narrowly as to require Congress to reenact it as each previously uncontemplated technology emerges.

Respectfully submitted,

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18. For example, consider the creation of new living organisms. See *In re Bergy*, 563 F. 2d 1031 (C. C. P. A. 1977) and *In re Chakrabarty*, — F. 2d —, 369 BNA-PTCJ D-1 (C. C. P. A. 1978). The PTC Journal comment on page A-3 refers to the filing by the Government of petitions for certiorari in both cases.